

Message Text

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ACTION OES-07

INFO OCT-01 EUR-12 EA-07 ISO-00 FEA-01 ACDA-07 CIAE-00

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TO SECSTATE WASHDC PRIORITY 4886

USERDA WASHDC

USERDA GERMANTOWN

INFO AMEMBASSY TOKYO

AMEMBASSY MADRID

AMEMBASSY PARIS

C O N F I D E N T I A L SECTION 1 OF 2 SEOUL 5530

DEPT FOR OES/NET/PM (ADLER) DEPT PASS NRC (LAFLEUR)

EO 11652: GDS

TAGS: TECH KS

SUBJ: KOREAN ELECTRIC UTILITY SURVEY TEAM COMMENT ON VISITS

REF: A) SEOUL 4002, B) SEUL 3398

SUMMARY: THEAM VISITS STIMULATED INTEREST IN ACCELERATING
AND EXPANDING PLANS FOR NUCLEAR POWER STATION CONSTRUCTION
AND DIVERSIFYING DEPENDENCE OUPON IMPORTED FUELS BY INCREASED
USE OF COAL AND URANIUM. END SUMMARY

1. THE FOLLOWING INFORMATION IS BASED UPON CONVERSATIONS
WITH DR. KIM YOON-HYUNG (KOREA DEVELOPMENT INSTITUTE),
TEAM LEADER OF A GROUP OF INDUSTRIAL AND GOVERNMENT EXPERTS
THAT VISITED ISRAEL, WESTERN EUROPE AND THE U.S. TO SURVEY
NATIONAL ENERGY POLICIES WITH PARTICULAR EMPHASIS ON
PLANNING AND IMPLEMENTATION ASPECTS OF ELECTRIC POWER
GENERATION, DISTRIBUTION AND FINANCING. KIM IS AN ECONOMIST
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PRACTICED IN LONG RANGE PLANNING AND ANALYSIS.

2. AS FORECAST IN REFTELS A AND B, VISITS HAVE STRONGLY
INFLUENCED KOREAN TEAM FINDINGS WHICH RECOMMEND INCREASED
USE OF IMPORTED COAL AND NUCLEAR FUELS FOR ELECTRICITY
GENERATION WITH EMPHASIS ON ACCELERATED CONSTRUCTION OF
NUCLEAR POWER STATIONS. IN THE PAST, KOREA HAD UNREALISTICALLY

SET 25,000 MWE NUCLEAR GENERATING CAPACITY BY THE YEAR 2000 AS A GOAL WHICH REPRESENTS SLIGHTLY MORE THAN 50 PERCENT OF PREDICTED INSTALLED CAPACITY. ALL NOW RECOGNIZE THE ABOVE IS UNATTAINABLE IN VIEW OF FINANCING AND TECHNICAL MANPOWER LIMITATIONS BROUGHT TO LIGHT THROUGH IMPLEMENTATION DIFFICULTIES ASSOCIATED WITH KOREA ELECTRIC COMPANY'S (KECO) PLAN TO INCREASE INSTALLED NUCLEAR GENERATING CAPACITY TO 22 PERCENT OF INSTALLED CAPACITY BY 1985. NEVERTHELESS, THE TEAM REPORT SUGGESTS AS MUCH NUCLEAR GENERATING CAPACITY AS IS FEASIBLE SHOULD BE INSTALLED, I.E. 40 PERCENT NUCLEAR CAPACITY BY 1990 WHICH WOULD REQUIRE CONSTRUCTION OF FOUR 1000 MWE CLASS PLANTS SUBSEQUENT TO AWARD OF PLANTS #7 AND #8, WHICH KECO ANNOUNCED IT WOULD BUILD EARLIER THIS MONTH.

3. WHILE DISCUSSING NUCLEAR POWER PLANT CONSTRUCTION WITH KR. KIM, ONE GAINS THE IMPRESSION THAT KDI CONSIDERS THE PURCHASE OF TWO 1000 MWE PRESSURIZED WATER REACTORS, AS WELL AS ENRICHMENT SERVICES, FROM FRENCH SUPPLIERS AS A FOREGONE CONCLUSION. IN RESPONSE TO COMMENT ON FRENCH PREFERENCE FOR CONSTRUCTION OF TURNKEY PLANTS WHICH WOULD LIMIT KOREAN ACQUISITION OF NUCLEAR TECHNOLOGY, KIM AVERRED THE EXPANDED REACTOR CONSTRUCTION PROGRAM OFFERS AMPLE OPPORTUNITY FOR U.S. SUPPLIERS WHO ARE MORE FLEXIBLE WITH RESPECT TO TECHNOLOGY TRANSFER. IT SHOULD BE NOTED THAT THE LEARNING POSSIBILITIES ATTENDING KOREAN PURCHASES OF EQUIPMENT AND ENGINEERING PERTAINING TO CANCELLED U.S. PLANTS SUCH AS

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VIRGINIA ELECTRIC POWER CO.'S SURRY UNITS 3 AND 4 WOULD BE CONSIDERABLE BECAUSE A COMPLETE REVIEW OF WORK PERFORMED PRIOR TO DATE OF PURCHASE WOULD BE IN ORDER. TO PERFORM THIS REVIEW, THE KOREA ELECTRIC COMPANY WOULD LIKELY LET A CONTRACT TO BECHTEL AND KOREA NUCLEAR ENGINEERING SERVICES INC. PERSONNEL OF THE LATTER FIRM WOULD ESSENTIALLY LEARN THE PRACTICAL SIDE OF NUCLEAR ENGINEERING IN CONJUNCTION WITH PERFORMING THE REVIEW.

4. IN WESTERN EUROPE THE TEAM NOTED ENRICHED URANIUM USERS ARE SPREADING PURCHASES OF ENRICHMENT SERVICES AMONG DIFFERENT SUPPLIERS IN ORDER TO MINIMIZE DEPENDENCE ON A SINGLE SOURCE. KIM CITED SPANISH SUCCESSES IN DISTRIBUTING ENRICHMENT SERVICE PURCHASES BETWEEN THE US, USSR AND FRANCE (DERIVED FROM APPROXIMATELY 12 PERCENT CAPITAL INVESTMENT SHARE IN EURODIF - THE FRENCH TECHNOLOGY INTERNATIONAL ENRICHMENT PLANT LOCATED AT PIERELLETTE, FRANCE), IN MANUFACTURING AT LEAST 50 PERCENT OF EACH NUCLEAR POWER STATION'S EQUIPMENT IN SPAIN, AND IN OBTAINING LONG TERM OVERSEAS CONTRACTS FOR URANIUM SUPPLY WHILE DEVELOPING INDIGENOUS ORES INDEPENDENTLY. HIS ADMIRATION OF THE SPANISH CLEARLY SHOWED HIS PREFERENCE

THAT KOREA PROCEED ALONG THE SAME PATH.

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5. KIM WAS ALSO GENUINELY IMPRESSED WITH PROJECTS UNDERWAY IN EUROPE, ISRAEL AND THE U.S. FOR INCREASED USE OF COAL FIRED POWER STATIONS AS A NEAR TERM EFFORT TO REDUCE OIL DEPENDENCE BY 1985. ISRAEL PLANS TO USE WEST GERMAN TECHNOLOGY AND EQUIPMENT TO BURN LOW CALORIFIC LIGNITE (BROWN COAL). THE ISRAELIS WILL BUILD ONLY COAL-FIRED PLANTS UNTIL THE TIME WHEN NUCLEAR POWER PLANT CONSTRUCTION BECOMES POLITICALLY FEASIBLE IN ISRAEL. THE SPANISH GOVERNMENT IS UNDERTAKING A TECHNICALLY CHALLENGING DEVELOPMENT PROGRAM FOR ECONOMIC BURNING OF LOW CALORIFIC VALUE FUELS SUCH AS PEAT. KIM VIEWS CURRENT KOREA ELECTRIC CO. PROJECTS TO BUILD TWO 500 MWE GENERATING PLANTS AT SAMCHONPO WHICH WILL BE FUELED WITH IMPORTED COAL AS A NECESSARY MEANS OF DIVERSIFYING KOREAN DEPENDENCY ON IMPORTED FUEL.

6. THE EUROPEAN LEG OF THE TRIP PROVIDED A GREAT DEAL OF

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TECHNICAL INFORMATION; THE U.S. LEG YIELDED VITAL UNDERSTANDING OF U.S. ENERGY POLICY AND ORGANIZATIONAL RELATIONSHIP BETWEEN PROVATE AND PUBLIC ENTITIES INVOLVED.

7. THE KOREANS HAVE A CONFUSING PRACTICE OF IDENTIFYING PLANNED NUCLEAR POWER STATIONS BY A NUMBER DENOTING THE ORDER OF PLANNED CONTRACT AWARD, I.E. THE FIRST PLANT TO BE ORDERED IS PLANT #1, ETC., THEN CHANGING PLANT IDENTIFICATION TO A SITE NAME AND UNIT NUMBER AFTER CONTRACT AWARD. PURCHASED AND PLANNED PLANTS ARE LISTED BELOW USING BOTH NAMES:

PLANT NO.	SITE AND UNIT NO.	TYPE	CAPACITY
	MWE		
1	KO-RI 1	PWR	595
2	OLSANG 1	CANDU	668
3	KO-RI 2	PWR	650
4	CONSTRUCTION OF A SECOND CANDU UNIT AT WOLSANG NOW QUESTIONABLE.		
5	KO-RI 3	PWR OR BWR	900
6	KO-RI 4	PWR OR BWR	900
7	SITE NOT SELECTED	PWR OR BWR	1000
8	SITE NOT SELECTED	PWR OR BWR	1000
9 - 12	POSSIBILITY PER	PWR OR BWR	1000

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8. TEAM RECOMMENDATIONS FAVORING ACQUISITION OF ADDITIONAL NUCLEAR PLANTS CAN BE EXPECTED TO FIND SUPPORT IN GOVERNMENT CIRCLES, ESPECIALLY MINISTRY OF COMMERCE AND INDUSTRY AND MINISTRY OF SCIENCE AND TECHNOLOGY, WHICH ARE PRESSING FOR TIES WITH EUROPEAN REACTOR SUPPLIERS. HOWEVER, IN RECENT MONTHS KECO MANAGEMENT HAS SHOWN SURPRISING SPIRIT AND COMPETENCE IN DEALING WITH GOVERNMENT AUTHORITIES AND IS NOT LIKELY TO BE STAMPEDED TO OVER-COMMIT ON NUCLEAR CONSTRUCTION. NONETHELESS KECO WILL WELCOME TEAM SUPPORT FOR PURCHASE OF PLANTS 5, 6, 7 AND 8 IN APPROXIMATELY SAME TIME FRAME TO ASSURE PURCHASE OF TWO PLANTS FROM FAVORED U.S. SUPPLIER, AS WELL AS

TWO PLATNS FROM FRANCE.
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